

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 14:06:12 ON 27 APR 2005

=> file biosis caba caplus embase japio lifesci medline scisearch uspatfull

=> e gennaro maria/au

E1 4 GENNARO M S/AU  
E2 1 GENNARO MARCO DI/AU  
E3 0 --> GENNARO MARIA/AU  
E4 8 GENNARO MARIA C/AU  
E5 54 GENNARO MARIA CARLA/AU  
E6 21 GENNARO MARIA L/AU  
E7 63 GENNARO MARIA LAURA/AU  
E8 2 GENNARO MARIACARLA/AU  
E9 5 GENNARO MARIELLA/AU  
E10 3 GENNARO MARILA/AU  
E11 3 GENNARO MARILA L/AU  
E12 11 GENNARO MARK/AU

=> s e6-e7

L1 84 ("GENNARO MARIA L"/AU OR "GENNARO MARIA LAURA"/AU)

=> dup rem l1

PROCESSING COMPLETED FOR L1

L2 49 DUP REM L1 (35 DUPLICATES REMOVED)

=> s l2 and tuberculosis

L3 32 L2 AND TUBERCULOSIS

=> d bib ab 1-

YOU HAVE REQUESTED DATA FROM 32 ANSWERS - CONTINUE? Y/(N):y

L3 ANSWER 1 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 2004:438664 BIOSIS

DN PREV200400437488

TI Effect of growth state on transcription levels of genes encoding major secreted antigens of Mycobacterium \*\*\*tuberculosis\*\*\* in the mouse lung.

AU Shi, Lanbo; North, Robert; \*\*\*Gennaro, Maria Laura\*\*\* [Reprint Author]

CS Publ Hlth Res Inst, Rm W250G, 225 Warren St, Newark, NJ, 07103, USA

gennaro@phri.org

SO Infection and Immunity, (April 2004) Vol. 72, No. 4, pp. 2420-2424. print.

ISSN: 0019-9567 (ISSN print).

DT Article

LA English

ED Entered STN: 17 Nov 2004

Last Updated on STN: 17 Nov 2004

AB Arrest of the multiplication of Mycobacterium \*\*\*tuberculosis\*\*\*

caused by expression of adaptive immunity in mouse lung was accompanied by a 10- to 20-fold decrease in levels of mRNAs encoding the secreted Ag85 complex and 38-kDa lipoprotein. esat-6 mRNA levels were high throughout infection. The data imply that multiplying and nonreplicating tubercle bacilli have different antigen compositions.

L3 ANSWER 2 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 2004:319724 BIOSIS

DN PREV200400320815

TI Comparative analysis of B- and T-cell epitopes of Mycobacterium leprae and Mycobacterium \*\*\*tuberculosis\*\*\* culture filtrate protein 10.

AU Spencer, John S. [Reprint Author]; Kim, Hee Jin; Marques, Angela M.;

Gonzalez-Juarerro, Mercedes; Lima, Monica C. B. S.; Vissa, Varalakshmi D.;

Truman, Richard W.; \*\*\*Gennaro, Maria Laura\*\*\* ; Cho, Sang-Nae; Cole,

Stewart T.; Brennan, Patrick J.

CS Dept Microbiol Immunol and Pathol, Colorado State Univ, Campus Delivery

1682, Ft Collins, CO, 80523, USA

John.Spencer@colostate.edu

SO Infection and Immunity, (June 2004) Vol. 72, No. 6, pp. 3161-3170. print.

ISSN: 0019-9567 (ISSN print).

DT Article

LA English

ED Entered STN: 21 Jul 2004

Last Updated on STN: 21 Jul 2004

AB Culture filtrate protein 10 (CFP-10) from Mycobacterium

\*\*\*tuberculosis\*\*\* is a well-characterized immunodominant 10-kDa protein antigen known to elicit a very potent early gamma interferon response in T

cells from M. **\*\*\*tuberculosis\*\*\*** -infected mice and humans. The sequence of the Mycobacterium leprae homologue of CFP-10 shows only 40% identity (60% homology) at the protein level with M. **\*\*\*tuberculosis\*\*\*** CFP-10 and thus has the potential for development as a T- or B-cell reactive antigen for specific diagnosis of leprosy. Antisera raised in mice or rabbits against recombinant M. leprae and M. **\*\*\*tuberculosis\*\*\*** CFP-10 proteins reacted only with homologous peptides from arrays of overlapping synthetic peptides, indicating that there was no detectable cross-reactivity at the antibody level. Sera from leprosy and **\*\*\*tuberculosis\*\*\*** patients were also specific for the homologous protein or peptides and showed distinct patterns of recognition for either M. leprae or M. **\*\*\*tuberculosis\*\*\*** CFP-10 peptides. At the cellular level, only 2 of 45 mouse T-cell hybridomas raised against either M. leprae or M. **\*\*\*tuberculosis\*\*\*** CFP-10 displayed a cross-reactive response against the N-terminal heterologous CFP-10 peptide, the region that exhibits the highest level of identity in the two proteins; however, the majority of peptide epitopes recognized by mouse T-cell hybridomas specific for each protein did not cross-react with heterologous peptides. Coupled with the human serology data, these results raise the possibility that peptides that could be used to differentiate infections caused by these two related microorganisms could be developed. Immunohistochemical staining of sections of M. leprae-infected nude mouse footpads resulted in strongly positive staining in macrophages and dendritic cells, as well as weaker staining in extracellular areas, suggesting that M. leprae CFP-10, like its homologue in M. **\*\*\*tuberculosis\*\*\***, is a secreted protein.

L3 ANSWER 3 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 2004:113485 BIOSIS  
DN PREV200400114232

TI Detection of early secretory antigenic target-6 antibody for diagnosis of **\*\*\*tuberculosis\*\*\*** in non-human primates.

AU Kanaujia, Ganga V.; Garcia, Manuel A.; Bouley, Donna M.; Peters, Robert; **\*\*\*Gennaro, Maria Laura\*\*\*** [Reprint Author]

CS Public Health Research Institute, 225 Warren Street, Newark, NJ, 07103, USA

SO Comparative Medicine (Memphis), (December 2003) Vol. 53, No. 6, pp. 602-606. print.

ISSN: 1532-0820 (ISSN print).

DT Article

LA English

ED Entered STN: 25 Feb 2004

Last Updated on STN: 25 Feb 2004

AB **\*\*\*Tuberculosis\*\*\*** is one of the most economically devastating, zoonotic infections of captive non-human primates. The limitations of the tuberculin skin test, which is currently used to diagnose

**\*\*\*tuberculosis\*\*\*** in living non-human primates, make it necessary to find new, simple, and economical diagnostic methods. We describe use of an enzyme-linked immunoassay to detect IgG antibodies against early secretory antigenic target (ESAT)-6, a small protein secreted by virulent tubercle bacilli, in paired (pre- and post-outbreak) sera from 57 non-human primates involved in an outbreak of Mycobacterium bovis infection in a research colony. Of 25 animals with **\*\*\*tuberculosis\*\*\*** lesions at necropsy, 22 (88%) had high serum levels of the ESAT-6 antibody. The ESAT-6 antibody was found in 16% (5/32) of post-outbreak sera from animals in which **\*\*\*tuberculosis\*\*\*** could not be confirmed at necropsy. The strong association between the ESAT-6 antibody and

**\*\*\*tuberculosis\*\*\*** in non-human primates documented in this study, together with the robustness of the serologic assay, make the ESAT-6 ELISA a valuable tool for diagnosis of **\*\*\*tuberculosis\*\*\*** in captive non-human primates.

L3 ANSWER 4 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 2003:498580 BIOSIS  
DN PREV200300500465

TI The potential of recombinant antigens ESAT-6, MPT63 and mig for specific discrimination of Mycobacterium **\*\*\*tuberculosis\*\*\*** and M. avium infection.

AU Rolinck-Werninghaus, Claudia [Reprint Author]; Magdorf, Klaus; Stark, Klaus; Lyashchenko, Konstantin; **\*\*\*Gennaro, Maria Laura\*\*\***; Colangeli, Roberto; Doherty, T. Mark; Andersen, Peter; Plum, Georg; Herz, Udo; Renz, Harald; Wahn, Ulrich

CS Department of Paediatric Pneumology and Immunology, Charite, Humboldt University, Augustenburger Platz 1, 13353, Berlin, Germany  
 claudia.rolinck-werninghaus@charite.de  
 SO European Journal of Pediatrics, (July 2003) Vol. 162, No. 7-8, pp. 534-536. print.  
 ISSN: 0340-6199 (ISSN print).  
 DT Article  
 LA English  
 ED Entered STN: 29 Oct 2003  
 Last Updated on STN: 29 Oct 2003

L3 ANSWER 5 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 AN 2003:378333 BIOSIS  
 DN PREV200300378333  
 TI Mycobacterium \*\*\*tuberculosis\*\*\* specific proteins and genes, mixtures of antigens and uses thereof.  
 AU \*\*\*Gennaro, Maria L.\*\*\* [Inventor, Reprint Author]; Lyashchenko, Konstantin P. [Inventor]; Manca, Claudia M. A. [Inventor]  
 CS Newark, NJ, USA  
 ASSIGNEE: The Public Health Research Institute of the City of New York, Inc., Newark, NJ, USA  
 PI US 6596281 July 22, 2003  
 SO Official Gazette of the United States Patent and Trademark Office Patents, (July 22 2003) Vol. 1272, No. 4. <http://www.uspto.gov/web/menu/patdata.htm> l. e-file.  
 ISSN: 0098-1133 (ISSN print).  
 DT Patent  
 LA English  
 ED Entered STN: 13 Aug 2003  
 Last Updated on STN: 13 Aug 2003

AB Two genes for proteins of M. \*\*\*tuberculosis\*\*\* have been sequenced. The DNAs and their encoded polypeptides can be used for immunoassays and vaccines. Cocktails of at least three purified recombinant antigens, and cocktails of at least three DNAs encoding them can be used for improved assays and vaccines for bacterial pathogens and parasites.

L3 ANSWER 6 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 AN 2003:291330 BIOSIS  
 DN PREV200300291330  
 TI Antigen recognition by serum antibodies in non-human primates experimentally infected with Mycobacterium \*\*\*tuberculosis\*\*\*  
 AU Brusasca, Pier Natale; Peters, Robert L.; Motzel, Sherri L.; Klein, Hilton J.; \*\*\*Gennaro, Maria Laura\*\*\* [Reprint Author]  
 CS Public Health Research Institute, 225 Warren Street, Newark, NJ, 07103, USA  
 SO Comparative Medicine (Memphis), (April 2003) Vol. 53, No. 2, pp. 165-172. print.  
 ISSN: 1532-0820 (ISSN print).  
 DT Article  
 LA English  
 ED Entered STN: 19 Jun 2003  
 Last Updated on STN: 19 Jun 2003

AB \*\*\*Tuberculosis\*\*\* is a significant threat to non-human primates and their caretakers. The diagnosis of \*\*\*tuberculosis\*\*\* in living non-human primates is currently based on the tuberculin skin test, which is cumbersome and sometimes inaccurate. Development of an accurate serodiagnostic test requires identification of the key antigens of Mycobacterium \*\*\*tuberculosis\*\*\* involved in antibody production. When sequential serum samples obtained from 17 cynomolgus, rhesus, and African green monkeys up to seven months since experimental infection with M. \*\*\*tuberculosis\*\*\* Erdman were screened for antibody against purified proteins of M. \*\*\*tuberculosis\*\*\*, three highly seroreactive antigens were identified. One protein, ESAT-6, reacted with sera from all infected animals. Two additional proteins, alpha-crystallin and MTSA-10, were recognized by sera from approximately 90% of infected animals. Time course analysis of antibody production indicated that the earliest response was usually to ESAT-6 alone or to ESAT-6 and other antigen(s). These results provide experimental evidence of the potential value of ESAT-6 as an antigen for use in serodiagnosis of \*\*\*tuberculosis\*\*\* in non-human primates.

L3 ANSWER 7 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 AN 2003:150371 BIOSIS  
 DN PREV200300150371  
 TI Lipoarabinomannan-reactive human secretory immunoglobulin A responses induced by mucosal bacille Calmette-Guerin vaccination.  
 AU Brown, Robin M.; Cruz, Orlando; Brennan, Michael; \*\*\*Gennaro, Maria\*\*\*  
 \*\*\* L.\*\*\* ; Schlesinger, Larry; Skeiky, Yasir A. W.; Hoft, Daniel F. [Reprint Author]  
 CS Div. of Infectious Diseases and Immunology, Depts. of Internal Medicine and Molecular Microbiology, Saint Louis University Health Sciences Center, 3635 Vista Ave., FDT-8N, Saint Louis, MO, 63110, USA  
 hoftdf@slu.edu  
 SO Journal of Infectious Diseases, (1 February 2003) Vol. 187, No. 3, pp. 513-517. print.  
 CODEN: JIDIAQ. ISSN: 0022-1899.  
 DT Article  
 LA English  
 ED Entered STN: 19 Mar 2003  
 Last Updated on STN: 19 Mar 2003  
 AB The ability of 17 recombinant mycobacterial proteins, native antigen 85 complex, lipoarabinomannan (LAM), and Mycobacterium \*\*\*tuberculosis\*\*\* lysate to detect antibody responses induced by bacille Calmette-Guerin (BCG) vaccination and active \*\*\*tuberculosis\*\*\* infection were studied in enzyme-linked immunosorbent assays. Only LAM-reactive serum immunoglobulin G responses were significantly increased in both BCG-vaccinated patients and patients with active \*\*\*tuberculosis\*\*\* (P<.05), and oral BCG vaccination also induced significant increases in LAM-reactive secretory immunoglobulin A (P<.05). LAM-reactive antibody assays can serve as markers of humoral and mucosal immunity in future trials of BCG and newer attenuated mycobacterial vaccines.

L3 ANSWER 8 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 AN 2003:104348 BIOSIS  
 DN PREV200300104348  
 TI Expression of Th1-mediated immunity in mouse lungs induces a Mycobacterium \*\*\*tuberculosis\*\*\* transcription pattern characteristic of nonreplicating persistence.  
 AU Shi, Lanbo; Jung, Yu-Jin; Tyagi, Sanjay; \*\*\*Gennaro, Maria Laura\*\*\* [Reprint Author]; North, Robert J.  
 CS Public Health Research Institute, Newark, NJ, 07103, USA  
 gennaro@phri.org  
 SO Proceedings of the National Academy of Sciences of the United States of America, (January 7 2003) Vol. 100, No. 1, pp. 241-246. print.  
 ISSN: 0027-8424 (ISSN print).  
 DT Article  
 LA English  
 ED Entered STN: 19 Feb 2003  
 Last Updated on STN: 19 Feb 2003  
 AB The lung is the primary target of infection with Mycobacterium \*\*\*tuberculosis\*\*\*. It is well established that, in mouse lung, expression of adaptive, Th1-mediated host immunity inhibits further multiplication of M. \*\*\*tuberculosis\*\*\*. Here, real-time RT-PCR was used to define the pattern of expression against time of lung infection of key genes involved in Th1-mediated immunity and of selected genes of M. \*\*\*tuberculosis\*\*\*. Inhibition of bacterial multiplication was preceded by increased mRNA synthesis for IFN-gamma and inducible NO synthase (NOS2) and by NOS2 protein synthesis in infected macrophages. Concurrently, the pattern of transcription of bacterial genes underwent dramatic changes. mRNA synthesis increased for alpha-crystallin (acr), rv2626c, and rv2623 and decreased for superoxide dismutase C (sodC), sodA, and fibronectin-binding protein B (fbpB). This pattern of M. \*\*\*tuberculosis\*\*\* transcription is characteristic of the nonreplicating persistence (Wayne, L. G. & Sohaskey, C. D. (2001) Annu. Rev. Microbiol. 55, 139-163) associated with adaptation of tubercle bacilli to hypoxia in vitro. Based on this similarity, we infer that host immunity induces bacterial growth arrest. In IFN-gamma gene-deleted mice, bacterial growth was not controlled; NOS2 protein was not detected in macrophages; sodC, sodA, and fbpB transcription showed no decrease; and acr, rv2626c, and rv2623 transcription increased only at the terminal stages of lung pathology. These findings define the transcription signature of M. \*\*\*tuberculosis\*\*\* as it transitions from growth to

persistence in the mouse lung. The bacterial transcription changes measured at onset of Th1-mediated immunity are likely induced, directly or indirectly, by nitric oxide generated by infected macrophages.

L3 ANSWER 9 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 2003:43194 BIOSIS  
DN PREV200300043194  
TI Genomics as a tool for identifying secreted proteins in bacteria.  
AU Ben Amor, Yanis [Reprint Author]; \*\*\*Gennaro, Maria Laura\*\*\* [Reprint Author]  
CS Public Health Research Institute, 225 Warren Street, Newark, NJ, 07103, USA  
SO Danchin, Antoine [Editor, Reprint Author]. (2002) pp. 119-157. Genomics of GC-rich Gram-positive bacteria. print.  
Publisher: Caister Academic Press, 32 Hewitts Lane, Wymondham, Norfolk, NR18 0JA, UK. Series: Functional Genomics Series.  
ISBN: 0-9542464-3-8 (cloth).  
DT Book; (Book Chapter)  
LA English  
ED Entered STN: 15 Jan 2003  
Last Updated on STN: 15 Jan 2003

L3 ANSWER 10 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 2003:35720 BIOSIS  
DN PREV200300035720  
TI Crystal structure of a major secreted protein of Mycobacterium \*\*\*tuberculosis\*\*\* : MPT63 at 1.5-ANG resolution.  
AU Goulding, Celia W.; Parseghian, Angineh; Sawaya, Michael R.; Cascio, Duilio; Apostol, Marcin I.; \*\*\*Gennaro, Maria Laura\*\*\* ; Eisenberg, David [Reprint Author]  
CS Center for Genomics and Proteomics, Howard Hughes Medical Institute, UCLA-DOE, P.O. Box 951970, Los Angeles, CA, 90095, USA  
david@mbi.ucla.edu  
SO Protein Science, (December 2002) Vol. 11, No. 12, pp. 2887-2893. print.  
ISSN: 0961-8368.  
DT Article  
LA English  
ED Entered STN: 8 Jan 2003  
Last Updated on STN: 8 Jan 2003

AB MPT63 is a small, major secreted protein of unknown function from Mycobacterium \*\*\*tuberculosis\*\*\* that has been shown to have immunogenic properties and has been implicated in virulence. A BLAST search identified that MPT63 has homologs only in other mycobacteria, and is therefore mycobacteria specific. As MPT63 is a secreted protein, mycobacteria specific, and implicated in virulence, MPT63 is an attractive drug target against the deadliest infectious disease, \*\*\*tuberculosis\*\*\* (TB). As part of the TB Structural Genomics Consortium, the X-ray crystal structure of MPT63 was determined to 1.5-ANGstrom resolution with the hope of yielding functional information about MPT63. The structure of MPT63 is an antiparallel beta-sandwich immunoglobulin-like fold, with the unusual feature of the first beta-strand of the protein forming a parallel addition to the small antiparallel beta-sheet. MPT63 has weak structural similarity to many proteins with immunoglobulin folds, in particular, Homo sapiens beta2-adaptin, bovine arrestin, and Yersinia pseudotuberculosis invasin. Although the structure of MPT63 gives no conclusive evidence to its function, structural similarity suggests that MPT63 could be involved in cell-host interactions to facilitate endocytosis/phagocytosis.

L3 ANSWER 11 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 2003:23512 BIOSIS  
DN PREV200300023512  
TI Immunological diagnosis of \*\*\*tuberculosis\*\*\* .  
AU \*\*\*Gennaro, Maria L.\*\*\*  
SO Tuberculosis (Edinburgh), (2002) Vol. 82, No. 2-3, pp. 140. print.  
Meeting Info.: International Symposium on Current Developments in Drug Discovery for Tuberculosis. Bangalore, India. January 14-17, 2002.  
ISSN: 1472-9792 (ISSN print).  
DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LA English  
ED Entered STN: 1 Jan 2003  
Last Updated on STN: 1 Jan 2003

L3 ANSWER 12 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 2002:506964 BIOSIS  
DN PREV200200506964  
TI Detection of antibody to Mycobacterium \*\*\*tuberculosis\*\*\* protein antigens in the cerebrospinal fluid of patients with tuberculous meningitis.  
AU Chandramuki, Akepati; Lyashchenko, Konstantin; Kumari, Haradara Bahubali Veena; Khanna, Neelam; Brusasca, Piernatale; Gourie-Devi, Mandavalli; Satishchandra, Parthasarathy; Shankar, Sursarla Krishna; Ravi, Vasanthapuram; Alcabes, Philip; Kanaujia, Ganga Vishnu; \*\*\*Gennaro,\*\*\*  
\*\*\* Maria Laura\*\*\* [Reprint author]  
CS Public Health Research Institute, 225 Warren St., Newark, NJ, 07103, USA gennaro@phri.org  
SO Journal of Infectious Diseases, (1 September, 2002) Vol. 186, No. 5, pp. 678-683. print.  
CODEN: JIDIAQ. ISSN: 0022-1899.  
DT Article  
LA English  
ED Entered STN: 25 Sep 2002  
Last Updated on STN: 25 Sep 2002

AB Antibodies against Mycobacterium \*\*\*tuberculosis\*\*\* antigens were detected by enzyme-linked immunosorbent assay in cerebrospinal fluid (CSF) samples obtained from 442 patients with tuberculous meningitis (TBM) and 102 control patients. Antibodies were found in the CSF of 87% of patients with clinical (culture-negative) TBM, 72% of patients with culture-positive TBM, and 65% of patients with autopsy-proven TBM. That anti-M. \*\*\*tuberculosis\*\*\* antibodies were detected in the CSF of patients with clinically diagnosed cases more frequently than in patients with culture-positive cases suggests that the detection of antibodies in CSF tends to decrease as bacillary load increases. Of the patients with clinical TBM who were coinfectd with human immunodeficiency virus (HIV), 70% exhibited anti-M. \*\*\*tuberculosis\*\*\* antibody in CSF, which suggests that antibody responses in this group were substantially weaker than those in HIV-negative patients with clinical TBM. Some groups showed a stronger response to certain antigens, which suggests that antigen recognition patterns may be specific for the stage of disease.

L3 ANSWER 13 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 2001:439721 BIOSIS  
DN PREV200100439721  
TI Characterization of the secreted MPT53 antigen of Mycobacterium \*\*\*tuberculosis\*\*\*  
AU Johnson, Sadie; Brusasca, Piernatale; Lyashchenko, Konstantin; Spencer, John S.; Wiker, Harald G.; Bifani, Pablo; Shashkina, Elena; Kreiswirth, Barry; Harboe, Morten; Schluger, Neil; Gomez, Manuel; \*\*\*Gennaro, Maria\*\*\*  
\*\*\* Laura\*\*\* [Reprint author]  
CS Public Health Research Institute, 455 First Ave, New York, NY, 10016, USA gennaro@phri.nyu.edu  
SO Infection and Immunity, (September, 2001) Vol. 69, No. 9, pp. 5936-5939. print.  
CODEN: INFIBR. ISSN: 0019-9567.  
DT Article  
LA English  
ED Entered STN: 19 Sep 2001  
Last Updated on STN: 22 Feb 2002

AB MPT53 is a secreted protein of Mycobacterium \*\*\*tuberculosis\*\*\*. Southern transfer and hybridization showed mpt53 to be conserved in the M. \*\*\*tuberculosis\*\*\* complex and to have homology with DNA from Mycobacterium avium and other nontuberculous mycobacteria. However, anti-MPT53 polyclonal antibodies detected no antigen in the culture filtrates of M. avium and other nontuberculous mycobacteria. MPT53 of M. \*\*\*tuberculosis\*\*\* induced strong, \*\*\*tuberculosis\*\*\*-specific antibody responses in guinea pigs but induced no delayed-type hyper-sensitivity. Involvement in immune responses during human \*\*\*tuberculosis\*\*\* was very modest.

L3 ANSWER 14 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 AN 2001:411556 BIOSIS  
 DN PREV200100411556  
 TI Combinatorial use of antibodies to secreted mycobacterial proteins in a  
 host immune system-independent test for \*\*\*tuberculosis\*\*\*  
 AU Landowski, Christopher P.; Godfrey, Henry P. [Reprint author];  
 Bentley-Hibbert, Stuart I.; Liu, Xinyan; Huang, Zhishan; Sepulveda,  
 Ricardo; Huygen, Kris; \*\*\*Gennaro, Maria L.\*\*\*; Moy, Fred H.; Lesley,  
 Scott A.; Haak-Frendscho, Mary  
 CS Department of Pathology, New York Medical College, Basic Science Building,  
 Valhalla, NY, 10595, USA  
 hgodfrey@nymc.edu  
 SO Journal of Clinical Microbiology, (July, 2001) Vol. 39, No. 7, pp.  
 2418-2424. print.  
 CODEN: JCMIDW. ISSN: 0095-1137.  
 DT Article  
 LA English  
 ED Entered STN: 29 Aug 2001  
 Last Updated on STN: 22 Feb 2002  
 AB Laboratory diagnosis of \*\*\*tuberculosis\*\*\* is often difficult.  
 Immunodetection of circulating Mycobacterium \*\*\*tuberculosis\*\*\*  
 proteins shed during active infection would not depend on an intact host  
 immune response and could take advantage of the speed and low costs  
 afforded by antibody-based assays. We previously showed that patients  
 with active \*\*\*tuberculosis\*\*\* had increased levels of circulating  
 antigen 85 (Ag85) proteins independent of their tuberculin skin test  
 status (S. I. Bentley-Hibbert, X. Quan, T. Newman, K. Huygen, and H.  
 P. Godfrey, Infect. Immun. 67:581-588, 1999). To extend these  
 observations to a Mycobacterium bovis BCG-vaccinated population and to  
 another secreted mycobacterial protein, Ag85 and PstS-1 (protein antigen  
 B, p38 antigen) were quantified in sera from 97 Chilean  
 \*\*\*tuberculosis\*\*\* patients and healthy controls (many of whom had  
 received BCG as children) using dot immunobinding, mouse monoclonal  
 anti-BCG Ag85 complex antibody, and chicken antipeptide antibodies  
 reactive with M. \*\*\*tuberculosis\*\*\* Ag85B and PstS-1. The latter  
 antibodies had been raised to peptide-derived immunogens expressed on a  
 novel proprietary protein carrier in Escherichia coli. Median serum Ag85  
 levels measured by using either anti-Ag85 antibody were significantly  
 higher in patients with active \*\*\*tuberculosis\*\*\* than in healthy  
 controls (P, < 0.001 to 0.01); the median serum PstS-1 levels were similar  
 in patients and controls. The sensitivity of significantly elevated  
 circulating Ag85 levels in patients with pulmonary \*\*\*tuberculosis\*\*\*  
 measured by anti-Ag85 complex or anti-Ag85B antibodies was 60 and 55%,  
 respectively, but increased to 77% when results obtained with both  
 anti-Ag85 antibodies were considered jointly (P < 0.02). The  
 corresponding specificities for individual and joint consideration were  
 95, 85, and 80%, respectively. These results indicate that elevated Ag85  
 levels can be detected in patients with active \*\*\*tuberculosis\*\*\* even  
 after BCG vaccination and suggest that combinatorial use of antibodies  
 directed at different epitopes of this protein could provide a viable  
 strategy for developing new host immune response-independent diagnostic  
 tests for \*\*\*tuberculosis\*\*\*.

L3 ANSWER 15 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 AN 2001:163391 BIOSIS  
 DN PREV200100163391  
 TI Mycobacterium \*\*\*tuberculosis\*\*\* specific proteins and genes, mixtures  
 of antigens and uses thereof.  
 AU \*\*\*Gennaro, Maria L.\*\*\* [Inventor, Reprint author]; Lyashchenko,  
 Konstantin P. [Inventor]; Manca, Claudia M.A. [Inventor]  
 CS New York, NY, USA  
 ASSIGNEE: The Public Health Research Institute of the City of New York,  
 Inc., New York, NY, USA  
 PI US 6087163 July 11, 2000  
 SO Official Gazette of the United States Patent and Trademark Office Patents,  
 (July 11, 2000) Vol. 1236, No. 2. e-file.  
 CODEN: OGUPE7. ISSN: 0098-1133.  
 DT Patent

LA English  
ED Entered STN: 4 Apr 2001  
Last Updated on STN: 15 Feb 2002

AB Two genes for proteins of M. \*\*\*tuberculosis\*\*\* have been sequenced. The DNAs and their encoded polypeptides can be used for immunoassays and vaccines. Cocktails of at least three purified recombinant antigens, and cocktails of at least three DNAs encoding them can be used for improved assays and vaccines for bacterial pathogens and parasites.

L3 ANSWER 16 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 2000:477385 BIOSIS  
DN PREV200000477385  
TI A multi-antigen print immunoassay for the development of serological diagnosis of infectious diseases.  
AU Lyashchenko, Konstantin P.; Singh, Mewa; Colangeli, Roberto; \*\*\*Gennaro,\*\*\*  
\*\*\* Maria Laura\*\*\* [Reprint author]  
CS Public Health Research Institute, 455 First Avenue, New York, NY, 10016, USA  
SO Journal of Immunological Methods, (28 August, 2000) Vol. 242, No. 1-2, pp. 91-100. print.  
CODEN: JIMMBG. ISSN: 0022-1759.  
DT Article  
LA English  
ED Entered STN: 8 Nov 2000  
Last Updated on STN: 10 Jan 2002

AB Serological diagnosis of infectious diseases that generate a highly heterogeneous antibody repertoire, such as \*\*\*tuberculosis\*\*\*, requires tests based on cocktails of antigens. We describe a new method called multi-antigen print immunoassay (MAPIA) for cocktail-based serological diagnosis. The assay entails the application of antigen to nitrocellulose membranes by micro-aerosolization (printing), followed by antibody detection using standard chromogenic immunodevelopment. Cocktails of protein antigens of Mycobacterium \*\*\*tuberculosis\*\*\* tested by MAPIA were found to maintain the serological activity of each of their components. In contrast, the same cocktails tested by enzyme-linked immunosorbent assay (ELISA) had a serological activity that was lower than the sum of the activities of their components. Consequently, cocktail-based MAPIA attained the diagnostic sensitivity expected on the basis of single antigen results, while a significant loss of diagnostic sensitivity was observed with cocktail-based ELISA. Thus, the MAPIA format is superior to conventional ELISA for the serological diagnosis of infectious diseases characterized by heterogeneous antibody responses.

L3 ANSWER 17 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 2000:410350 BIOSIS  
DN PREV200000410350  
TI Immunologic diagnosis of \*\*\*tuberculosis\*\*\*  
AU \*\*\*Gennaro, Maria-Laura\*\*\* [Reprint author]  
CS Public Health Research Institute, 455 First Avenue, New York, NY, 10016, USA  
SO Clinical Infectious Diseases, (June, 2000) Vol. 30, No. Supplement 3, pp. S243-S246. print.  
CODEN: CIDIEL. ISSN: 1058-4838.  
DT Article  
LA English  
ED Entered STN: 27 Sep 2000  
Last Updated on STN: 8 Jan 2002

AB Evaluation of new vaccines against \*\*\*tuberculosis\*\*\* requires diagnostic tools for accurately identifying asymptomatic individuals infected with Mycobacterium \*\*\*tuberculosis\*\*\* and persons with active \*\*\*tuberculosis\*\*\*. This article discusses limitations of current methods for the immunologic diagnosis of latent infection and active disease and presents novel approaches to developing skin tests and serodiagnostic assays based on "cocktails" of multiple antigens of M. \*\*\*tuberculosis\*\*\*.

L3 ANSWER 18 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 2000:177710 BIOSIS



DN PREV200000177710  
TI Identification of secreted proteins of Mycobacterium \*\*\*tuberculosis\*\*\*  
by a bioinformatic approach.  
AU Gomez, Manuel; Johnson, Sadie; \*\*\*Gennaro, Maria Laura\*\*\* [Reprint  
author]  
CS Public Health Research Institute, 455 First Ave., New York, NY, 10016, USA  
SO Infection and Immunity, (April, 2000) Vol. 68, No. 4, pp. 2323-2327.  
print.  
CODEN: INFIBR. ISSN: 0019-9567.  
DT Article  
LA English  
ED Entered STN: 11 May 2000  
Last Updated on STN: 4 Jan 2002  
AB Proteins secreted by Mycobacterium \*\*\*tuberculosis\*\*\* are usually  
targets of immune responses in the infected host. Here we describe a  
search for secreted proteins that combined the use of bioinformatics and  
phoA' fusion technology. The 3,924 proteins deduced from the M.  
\*\*\*tuberculosis\*\*\* genome were analyzed with several computer programs.  
We identified 52 proteins carrying an NH2-terminal secretory signal  
peptide but lacking additional membrane-anchoring moieties. Of these 52  
proteins-the TM1 subgroup-only 7 had been previously reported to be  
secreted proteins. Our predictions were confirmed in 9 of 10 TM1 genes  
that were fused to Escherichia coli phoA', a marker of subcellular  
localization. These findings demonstrate that the systematic computer  
search described in this work identified secreted proteins of M.  
\*\*\*tuberculosis\*\*\* with high efficiency and 90% accuracy.

L3 ANSWER 19 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
AN 2000:106323 BIOSIS  
DN PREV200000106323  
TI MTSA-10, the product of the Rv3874 gene of Mycobacterium  
\*\*\*tuberculosis\*\*\*, elicits \*\*\*tuberculosis\*\*\*-specific,  
delayed-type hypersensitivity in guinea pigs.  
AU Colangeli, Roberto; Spencer, John S.; Bifani, Pablo; Williams, Alan;  
Lyashchenko, Konstantin; Keen, Marc A.; Hill, Preston J.; Belisle, John;  
\*\*\*Gennaro, Maria Laura\*\*\* [Reprint author]  
CS Public Health Research Institute, 455 First Ave., New York, NY, 10016, USA  
SO Infection and Immunity, (Feb., 2000) Vol. 68, No. 2, pp. 990-993. print.  
CODEN: INFIBR. ISSN: 0019-9567.  
DT Article  
LA English  
ED Entered STN: 22 Mar 2000  
Last Updated on STN: 3 Jan 2002  
AB In a search for new skin test reagents specific for \*\*\*tuberculosis\*\*\*  
, we found that the antigen encoded by gene Rv3874 of Mycobacterium  
\*\*\*tuberculosis\*\*\* elicited delayed-type hypersensitivity in M.  
\*\*\*tuberculosis\*\*\*-infected guinea pigs but not in control animals  
immunized with Mycobacterium bovis bacillus Calmette-Guerin (BCG) or  
Mycobacterium avium. The antigen, which was named MTSA-10 (for M.  
\*\*\*tuberculosis\*\*\*-specific antigen 10), is a prime candidate for a  
component of a new tuberculin that will allow discrimination by a skin  
test of latent M. \*\*\*tuberculosis\*\*\* infection from vaccination with  
BCG or from sensitization with environmental, nontuberculous mycobacteria.

L3 ANSWER 20 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
AN 1999:60354 BIOSIS  
DN PREV199900060354  
TI Differential T cell responses to Mycobacterium \*\*\*tuberculosis\*\*\*  
ESAT6 in \*\*\*tuberculosis\*\*\* patients and healthy donors.  
AU Ulrichs, Timo; Munk, Martin E. [Reprint author]; Mollenkopf, Hans;  
Behr-Perst, Susanne; Colangeli, Roberto; \*\*\*Gennaro, Maria Laura\*\*\* ;  
Kaufmann, Stefan H. E.  
CS Max-Planck-Inst. Infection Biol., Monbijoustr. 2, D-10117 Berlin, Germany  
SO European Journal of Immunology, (Dec., 1998) Vol. 28, No. 12, pp.  
3949-3958. print.  
CODEN: EJIMAF. ISSN: 0014-2980.  
DT Article  
LA English  
ED Entered STN: 16 Feb 1999

Last Updated on STN: 16 Feb 1999

AB Vaccination against and diagnosis of \*\*\*tuberculosis\*\*\* are still insufficient. Proteins secreted by Mycobacterium \*\*\*tuberculosis\*\*\* induce strong immune responses in \*\*\*tuberculosis\*\*\* and constitute prime candidates for development of novel vaccines against \*\*\*tuberculosis\*\*\* as well as for immunodiagnostic assays. We investigated the role of the secreted proteins MPT63, MPT64 and ESAT6 from M. \*\*\*tuberculosis\*\*\* in healthy individuals and \*\*\*tuberculosis\*\*\* patients. None of the secreted proteins stimulated peripheral blood mononuclear cells from healthy donors. In contrast, CD4+ T cells from many \*\*\*tuberculosis\*\*\* patients were stimulated in an MHC class II-restricted fashion by ESAT6, but not by MPT63 or MPT64. T cell reactivities of \*\*\*tuberculosis\*\*\* patients were focused on the N-terminal region of ESAT6. The ESAT6 T cell epitopes were presented by different HLA-DR phenotypes. Cell cultures responding to either ESAT6 or synthetic peptides thereof showed mRNA transcripts for macrophage inflammatory protein (MIP)-1 alpha, monocyte chemotactic protein (MCP)-1 or IL-8 and production of IFN-gamma and MIP1alpha. Our results suggest that the secreted M. \*\*\*tuberculosis\*\*\* proteins MPT63, MPT64 or ESAT6 do not stimulate unprimed T cells, and that ESAT6 may be a potential candidate antigen for detection of clinical disease.

L3 ANSWER 21 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 1998:512324 BIOSIS

DN PREV199800512324

TI Diversity of antigen recognition by serum antibodies in experimental bovine \*\*\*tuberculosis\*\*\*

AU Lyashchenko, Konstantin P. [Reprint author]; Pollock, John M.; Colangeli, Roberto; \*\*\*Gennaro, Maria Laura\*\*\*

CS Public Health Res. Inst., 455 First Avenue, New York, NY 10016, USA

SO Infection and Immunity, (Nov., 1998) Vol. 66, No. 11, pp. 5344-5349. print.

CODEN: INFIBR. ISSN: 0019-9567.

DT Article

LA English

ED Entered STN: 18 Dec 1998

Last Updated on STN: 18 Dec 1998

AB \*\*\*Tuberculosis\*\*\* in cattle remains a major zoonotic and economic problem in many countries. The standard diagnostic assay for bovine \*\*\*tuberculosis\*\*\*, the intradermal tuberculin test, has low accuracy. Therefore, alternative immunodiagnostic methods, such as serological assays, are needed for detection of infected animals. Development of an accurate serodiagnostic test requires a detailed understanding of the humoral immune responses during bovine \*\*\*tuberculosis\*\*\* and, in particular, identification of the key antigens of Mycobacterium bovis involved in antibody production. In this study, we characterized antibody responses in cattle experimentally infected with M. bovis. Sequential serum samples were collected every 3 to 4 weeks for up to 27 months postinfection. Circulating immunoglobulin G antibody levels were measured by an enzyme-linked immunosorbent assay using 12 highly purified recombinant proteins of M. bovis. Six proteins, ESAT-6, 14-kDa protein, MPT63, MPT70, MPT51, and MPT32, were identified as major seroreactive antigens in bovine \*\*\*tuberculosis\*\*\*. A remarkable animal-to-animal variation of antigen recognition by serum antibodies was observed. Kinetic analyses of the antibody production to individual antigens during infection revealed that the heterogeneous antigen recognition profile changed markedly in a given infected animal as disease progressed.

L3 ANSWER 22 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 1998:443089 BIOSIS

DN PREV199800443089

TI Three-step purification of lipopolysaccharide-free, polyhistidine-tagged recombinant antigens of Mycobacterium \*\*\*tuberculosis\*\*\*

AU Colangeli, Roberto; Heijbel, Anna; Williams, Alan M. [Reprint author]; Manca, Claudia; Chan, Joena; Lyashchenko, Konstantin; \*\*\*Gennaro, Maria\*\*\*  
\*\*\* Laura\*\*\*

CS Amersham Pharm. Biotech., PO Box 1327, 800 Centennial Ave., Piscataway, NJ 08855-1327, USA

SO Journal of Chromatography B, (Sept. 4, 1998) Vol. 714, No. 2, pp. 223-235.

print.

CODEN: JCBADL. ISSN: 0378-4347.

DT Article

LA English

ED Entered STN: 21 Oct 1998

Last Updated on STN: 21 Oct 1998

AB Previous work has shown that the study of host immune responses against *Mycobacterium tuberculosis*, the causative agent of *tuberculosis*, requires the availability of multiple mycobacterial antigens. Since purification of protein from *M. tuberculosis* cells is extremely cumbersome, we developed a protocol for purifying milligram amounts of ten recombinant antigens of *M. tuberculosis* from *E. coli* cells. Purified proteins were immunologically active and free of contaminants that confound interpretation of cell-based immunological assays. The method utilizes a three-step purification protocol consisting of immobilized metal-chelate affinity chromatography, size exclusion chromatography and anion-exchange chromatography. The first two chromatographic steps yielded recombinant protein free of protein contaminants, while the third step (anion-exchange chromatography) efficiently removed *E. coli* lipopolysaccharide, a potent polygonal activator of lymphoid cells. The recombinant proteins were immunologically indistinguishable from their native (i.e., purified from *M. tuberculosis*) counterparts. Thus the method provides a way to utilize recombinant proteins for immunological analyses that require highly purified antigens.

L3 ANSWER 23 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 1998:393518 BIOSIS

DN PREV199800393518

TI Heterogenous antibody responses in *tuberculosis*.

AU Lyashchenko, Konstantin; Colangeli, Roberto; Houde, Michel; Al Jahdali, Hamdan; Menzies, Dick; *Gennaro, Maria Laura* [Reprint author]

CS Publ. Health Res. Inst., 455 First Ave., New York, NY 10016, USA

SO Infection and Immunity, (Aug., 1998) Vol. 66, No. 8, pp. 3936-3940. print.

CODEN: INFIBR. ISSN: 0019-9567.

DT Article

LA English

ED Entered STN: 10 Sep 1998

Last Updated on STN: 10 Sep 1998

AB Antibody responses during *tuberculosis* were analyzed by an enzyme-linked immunosorbent assay with a panel of 10 protein antigens of *Mycobacterium tuberculosis*. It was shown that serum immunoglobulin G antibodies were produced against a variety of *M. tuberculosis* antigens and that the vast majority of sera from *tuberculosis* patients contained antibodies against one or more *M. tuberculosis* antigens. The number and the species of serologically reactive antigens varied greatly from individual to individual. In a given serum, the level of specific antibodies also varied with the antigen irrespective of the total number of antigens recognized by that particular serum. These findings indicate that person-to-person heterogeneity of antigen recognition, rather than recognition of particular antigens, is a key attribute of the antibody response in *tuberculosis*.

L3 ANSWER 24 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 1998:393343 BIOSIS

DN PREV199800393343

TI Use of *Mycobacterium tuberculosis* complex-specific antigen cocktails for a skin test specific for *tuberculosis*.

AU Lyashchenko, Konstantin; Manca, Claudia; Colangeli, Roberto; Heijbel, Anna; Williams, Alan; *Gennaro, Maria Laura*

CS Public Health Res. Inst., 455 First Ave., New York, NY 10016, USA

SO Infection and Immunity, (Aug., 1998) Vol. 66, No. 8, pp. 3606-3610. print.

CODEN: INFIBR. ISSN: 0019-9567.

DT Article

LA English

ED Entered STN: 10 Sep 1998

Last Updated on STN: 10 Sep 1998

AB The tuberculin skin test currently used to diagnose infection with

Mycobacterium \*\*\*tuberculosis\*\*\* has poor diagnostic value, especially in geographic areas where the prevalence of \*\*\*tuberculosis\*\*\* is low or where the environmental burden of saprophytic, nontuberculous mycobacteria is high. Inaccuracy of the tuberculin skin test often reflects a low diagnostic specificity due to the presence in tuberculin of antigens shared by many mycobacterial species. Thus, a skin test specific for \*\*\*tuberculosis\*\*\* requires the development of new tuberculin cocktails consisting of antigens specific to M. \*\*\*tuberculosis\*\*\*. We have formulated cocktails of two to eight antigens of M. \*\*\*tuberculosis\*\*\* purified from recombinant Escherichia coli. Multiantigen cocktails were evaluated by skin testing guinea pigs sensitized with M. bovis BCG. Reactivity of multiantigen cocktails was greater than that of any single antigen. Cocktail activity increased with the number of antigens in the cocktail even when the same amount of total protein was used for cocktails and for each single antigen. A cocktail of four purified antigens specific for the M. \*\*\*tuberculosis\*\*\* complex elicited skin test responses only in BCG-immunized guinea pigs, not in control animals immunized with M. avium. These findings open the way to designing a multiantigen formulation for a skin test specific for \*\*\*tuberculosis\*\*\*

- L3 ANSWER 25 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
- AN 1998:33303 BIOSIS
- DN PREV199800033303
- TI MTC28, a novel 28-kilodalton proline-rich secreted antigen specific for the Mycobacterium \*\*\*tuberculosis\*\*\* complex.
- AU Manca, Claudia; Lyashchenko, Konstantin; Colangeli, Roberto; \*\*\*Gennaro,\*\*\*  
 \*\*\* Maria Laura\*\*\* [Reprint author]
- CS Public Health Res. Inst., 455 First Ave., New York, NY 10016, USA
- SO Infection and Immunity, (Dec., 1997) Vol. 65, No. 12, pp. 4951-4957.  
 print.  
 CODEN: INFIBR. ISSN: 0019-9567.
- DT Article
- LA English
- OS Genbank-U75271
- ED Entered STN: 14 Jan 1998  
 Last Updated on STN: 24 Feb 1998
- AB Proteins that are actively secreted by Mycobacterium \*\*\*tuberculosis\*\*\* serve as major targets of immune responses in the infected host. To identify and purify novel proteins in the filtrates of M. \*\*\*tuberculosis\*\*\* cultures, a bacteriophage lambda library of M. \*\*\*tuberculosis\*\*\* H37Rv DNA was immunoscreened by using an anti-culture filtrate rabbit antiserum. Of 20 positive clones isolated, 6 were analyzed and found to express the genes for two known components of the early culture filtrate, the secreted 45/47-kDa antigen complex and the KatG protein, and two novel genes. Here we report the molecular cloning and nucleotide sequence of one of the new genes encoding a culture filtrate protein of 310 amino acid (aa) residues. We called this gene mtc28. The deduced polypeptide sequence contained an NH2-terminal, highly hydrophobic 32-aa region having properties of a secretion signal peptide. The putative 278-aa mature MTC28 protein was characterized at its NH2 and COOH termini by a high content of proline and alanine residues organized in an (AP)<sub>n</sub> motif. Thus, MTC28 is a new member of a group of proline-rich antigens found in M. \*\*\*tuberculosis\*\*\* and Mycobacterium leprae. As shown by DNA hybridization experiments, the mtc28 gene was present only in species of the M. \*\*\*tuberculosis\*\*\* complex. Purified recombinant MTC28 antigen evoked strong delayed-type hypersensitivity and antibody responses in guinea pigs immunized with Mycobacterium bovis BCG, but not in guinea pigs immunized with Mycobacterium avium. The strong immunological activity of MTC28 and the absence of B- and T-cell epitopes cross-reactive with a common environmental mycobacterial species, such as M. avium, make this novel antigen an attractive reagent for immunodiagnosis of \*\*\*tuberculosis\*\*\*
- L3 ANSWER 26 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
- AN 1997:60405 BIOSIS
- DN PREV199799359608
- TI Molecular cloning, purification, and serological characterization of MPT63, a novel antigen secreted by Mycobacterium \*\*\*tuberculosis\*\*\*

AU Manca, Claudia; Lyashchenko, Konstantin; Wiker, Harald Gotten; Usai, Donatella; Colangeli, Roberto; \*\*\*Gennaro, Maria Laura\*\*\* [Reprint author]

CS Public Health Res. Inst., New York, NY 10016, USA

SO Infection and Immunity, (1997) Vol. 65, No. 1, pp. 16-23.  
CODEN: INFIBR. ISSN: 0019-9567.

DT Article

LA English

OS Genbank-U27119

ED Entered STN: 11 Feb 1997  
Last Updated on STN: 25 Mar 1997

AB Proteins that are actively secreted by Mycobacterium \*\*\*tuberculosis\*\*\* generate immune responses in the infected host. This has prompted the characterization of protein components of mycobacterial culture filtrates to develop subunit vaccines and immunodiagnostic reagents. Fractionation of filtrates of M. \*\*\*tuberculosis\*\*\* cultures has yielded an abundant protein called MPT63, which has an apparent molecular mass of 18 kDa. We report the molecular cloning and nucleotide sequence of the mpt63 gene, purification of recombinant MPT63 antigen from Escherichia coli cells, and serological characterization of MPT63. Nucleotide sequence analysis of mpt63 identified an open reading frame encoding a protein of 159 amino acids (aa) consisting of a 29-aa secretion signal peptide and a 130-aa mature MPT63 protein. Recombinant MPT63 protein, purified from E. coli cells, and native MPT63, purified from M. \*\*\*tuberculosis\*\*\* culture filtrates, were indistinguishable in serological assays. Thus, the recombinant protein constitutes a valuable reagent for immunological studies. MPT63 evoked humoral immune responses in guinea pigs infected with virulent M. \*\*\*tuberculosis\*\*\* by the aerosol route. The mpt63 gene is found only in species of the M. \*\*\*tuberculosis\*\*\* complex, as shown by DNA hybridization experiments. Moreover, polyclonal antibody against MPT63 does not cross-react with proteins of a common environmental mycobacterial species, Mycobacterium avium. The absence of cross-reactive epitopes makes MPT63 an attractive candidate as an M. \*\*\*tuberculosis\*\*\* complex-specific diagnostic reagent. In particular, evaluation of MPT63 as an M. \*\*\*tuberculosis\*\*\* complex-specific reagent for diagnostic skin testing is under way.

L3 ANSWER 27 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 1995:147923 BIOSIS

DN PREV199598162223

TI Gene cloning and purification of proteins secreted by Mycobacterium \*\*\*tuberculosis\*\*\*

AU \*\*\*Gennaro, Maria Laura\*\*\* ; Manca, Claudia; Usai, Donatella

CS Public Health Res. Inst., New York, NY 10016, USA

SO Journal of Cellular Biochemistry Supplement, (1995) Vol. 0, No. 19B, pp. 68.  
Meeting Info.: Keystone Symposium on Molecular Mechanisms in Tuberculosis. Tamaron, Colorado, USA. February 19-25, 1995.  
ISSN: 0733-1959.

DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
Conference; (Meeting Poster)

LA English

ED Entered STN: 3 Apr 1995  
Last Updated on STN: 3 Apr 1995

L3 ANSWER 28 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:672314 CAPLUS

DN 139:335006

TI Detection of antibody to Mycobacterium \*\*\*tuberculosis\*\*\* protein antigens in the cerebrospinal fluid of patients with tuberculous meningitis. [Erratum to document cited in CA138:12446]

AU Chandramuki, Akepati; Lyashchenko, Konstantin; Kumari, Haradara Bahubali Veena; Khanna, Neelam; Brusasca, Piernatale; Gourie-Devi, Mandavalli; Satishchandra, Parthasarathy; Shankar, Sursarl Krishna; Ravi, Vasanthapuram; Alcibes, Philip; Kanaujia, Ganga Vishnu; \*\*\*Gennaro, Maria Laura\*\*\*

CS National Institute of Mental Health and Neurosciences, Bangalore, India

SO Journal of Infectious Diseases (2003), 187(1), 163  
CODEN: JIDIAQ; ISSN: 0022-1899

PB University of Chicago Press  
 DT Journal  
 LA English  
 AB On page 679, Methods section, paragraph 2, lines 3 and 4 should read "the culture-pos. TBM group (69 patients)" rather than "the culture-pos. TBM group (264 patients)". On page 681, Results section, paragraph 5, lines 12 and 13 should read "14 [8%] of 50 in the culture-pos. [not autopsy-proven] TBM group" and lines 17 and 18 should read "6 [12%] of 50 in the culture-pos. [not autopsy-proven] TBM group."

L3 ANSWER 29 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2002:855920 CAPLUS  
 DN 138:51429  
 TI Genomics as a tool for identifying secreted proteins in bacteria  
 AU Ben Amor, Yanis; \*\*\*Gennaro, Maria Laura\*\*\*  
 CS Public Health Research Institute, Newark, NJ, 07103, USA  
 SO Functional Genomics Series (2002), 2(Genomics of GC-Rich Gram-Positive Bacteria), 119-157  
 CODEN: FGSUAB

PB Caister Academic Press  
 DT Journal; General Review  
 LA English  
 AB A review. Bacteria have evolved at least four pathways to transport proteins out of the cytoplasm. Proteins secreted by one of these pathways, the type II system, are characterized by the presence of a cleavable, NH2-terminal signal peptide. All other pathways lack an obvious marker for secretion. The sequence information gained by the anal. of bacterial genomes and of the proteins they encode should accelerate the identification of common domains/motifs in proteins targeted by, or constituting the transport machinery of, a given secretion pathway. Since genes involved in secretion by type I, III and IV systems tend to be found in clusters, finding substrates of secretion should help identify the corresponding transporters and vice versa. Three families of well-characterized secreted proteins of Mycobacterium \*\*\*tuberculosis\*\*\* were analyzed for relationships between gene location and gene regulation with protein sequence, function, or subcellular location. While it is still not possible to identify a secreted protein based on sequence information alone, there is little doubt that the ever-expanding knowledge of gene sequence, location and context on genomes, together with information on protein structure and function, will help develop rules to predict the fate of proteins in terms of their secretion.

RE.CNT 153 THERE ARE 153 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 30 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2000:790341 CAPLUS  
 DN 133:349130  
 TI Proteins expressed by Mycobacterium \*\*\*tuberculosis\*\*\* and not by BCG and their use as diagnostic reagents and vaccines  
 IN \*\*\*Gennaro, Maria L.\*\*\*  
 PA The Public Health Research Institute of the City of New York, Inc., USA  
 SO PCT Int. Appl., 35 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000066157	A1	20001109	WO 2000-US12257	20000504
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 2372583 AA 20001109 CA 2000-2372583 20000504 EP 1214088 A1 20020619 EP 2000-928851 20000504 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO, MK, CY, AL  
 JP 2003519467 T2 20030624 JP 2000-615041 20000504  
 AU 773268 B2 20040520 AU 2000-47023 20000504  
 PRAI US 1999-132505P A1 19990504  
 WO 2000-US12257 W 20000504  
 AB The invention provides polypeptides encoded by open reading frames present in the genome of Mycobacterium \*\*\*tuberculosis\*\*\* but absent from the genome of BCG and diagnostic and prophylactic methodologies using these polypeptides. The disclosed polypeptides are MTBN1-8, i.e. Mycobacterium \*\*\*tuberculosis\*\*\* BCG-neg. protein or antigen 1-8.  
 RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 31 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2000:790327 CAPLUS  
 DN 133:332032  
 TI Secreted proteins of Mycobacterium \*\*\*tuberculosis\*\*\* and their use in vaccines and diagnostic reagents  
 IN \*\*\*Gennaro, Maria L.\*\*\* ; Gomez, Manuel J.  
 PA The Public Health Research Institute of the City of New York, Inc., USA  
 SO PCT Int. Appl., 60 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000066143	A1	20001109	WO 2000-US12197	20000504
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI US 1999-132479P	P	19990504		
US 1999-132503P	P	19990504		
AB The invention provides Mycobacterium ***tuberculosis*** polypeptides and genes encoding them for use in diagnostic and prophylactic methodologies. The proteins were identified in sequence databases by querying them for signal peptide-like sequences.				
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L3 ANSWER 32 OF 32 MEDLINE on STN  
 AN 2003315596 MEDLINE  
 DN PubMed ID: 12715165  
 TI The potential of recombinant antigens ESAT-6, MPT63 and mig for specific discrimination of Mycobacterium \*\*\*tuberculosis\*\*\* and M. avium infection.  
 AU Rolinck-Werninghaus Claudia; Magdorf Klaus; Stark Klaus; Lyashchenko Konstantin; \*\*\*Gennaro Maria Laura\*\*\* ; Colangeli Roberto; Doherty T Mark; Andersen Peter; Plum Georg; Herz Udo; Renz Harald; Wahn Ulrich  
 SO European journal of pediatrics, (2003 Jul) 162 (7-8) 534-6. Electronic Publication: 2003-04-25.  
 Journal code: 7603873. ISSN: 0340-6199.  
 CY Germany: Germany, Federal Republic of  
 DT Letter  
 LA English  
 FS Priority Journals  
 EM 200312  
 ED Entered STN: 20030708  
 Last Updated on STN: 20031218  
 Entered Medline: 20031201

=> e gomez manuel j/au  
 E1 8 GOMEZ MANUEL F/AU  
 E2 1 GOMEZ MANUEL FRANCISCO/AU  
 E3 8 --> GOMEZ MANUEL J/AU

E4	1	GOMEZ MANUEL LOPEZ/AU
E5	1	GOMEZ MANUEL ORTIZ/AU
E6	24	GOMEZ MANUEL R/AU
E7	4	GOMEZ MANUEL S/AU
E8	1	GOMEZ MANUEL V/AU
E9	2	GOMEZ MANZANEQUE A/AU
E10	15	GOMEZ MANZANEQUE F/AU
E11	6	GOMEZ MANZANEQUE FERNANDO/AU
E12	1	GOMEZ MANZANEQUE JOSE MARIA MANCEBO QUINTANA AND FER/AU

=> s e3

L4 8 "GOMEZ MANUEL J"/AU

=> dup rem l4

PROCESSING COMPLETED FOR L4

L5 6 DUP REM L4 (2 DUPLICATES REMOVED)

=> d bib ab 1-

YOU HAVE REQUESTED DATA FROM 6 ANSWERS - CONTINUE? Y/(N):y

L5 ANSWER 1 OF 6 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 2004:431513 BIOSIS  
DN PREV200400435035  
TI Prediction of functional sites in proteins by evolutionary methods.  
AU Lopez-Romero, Pedro [Reprint Author]; \*\*\*Gomez, Manuel J.\*\*\* ;  
Gomez-Puertas, Paulino; Valencia, Alfonso  
CS Centro Nacional de Biotecnologia, CSIC, Campus UAM, Cantoblanco, Madrid,  
28049, Spain  
plromero@cnb.uam.es; mjgommo@cnb.uam.es; pagomez@cnb.uam.es;  
valencia@cmb.uam.es  
SO Kamp, Roza Maria [Editor, Reprint Author]; Calvete, Juan J. [Editor];  
Choli-Papadopolou, Theodora [Editor]. (2004) pp. 319-340. Methods in  
proteome and protein analysis. print.  
Publisher: Springer-Verlag GmbH & Co. KG, Heidelberger Platz 3, D-14197,  
Berlin, Germany. Series: Principles and Practice.  
ISBN: 3-540-20222-6 (cloth).  
DT Book; (Book Chapter)  
LA English  
ED Entered STN: 10 Nov 2004  
Last Updated on STN: 10 Nov 2004

L5 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:375866 CAPLUS  
DN 141:309772  
TI Prediction of functional sites in proteins by evolutionary methods  
AU Lopez-Romero, Pedro; \*\*\*Gomez, Manuel J.\*\*\* ; Gomez-Puertas, Paulino;  
Valencia, Alfonso  
CS Centro Nacional de Biotecnologia, CSIC, Madrid, 28049, Spain  
SO Methods in Proteome and Protein Analysis (2004), 319-340. Editor(s):  
Kamp, Roza Maria; Calvete, Juan J.; Choli-Papadopolou, Theodora.  
Publisher: Springer-Verlag, Berlin, Germany.  
CODEN: 69FJLW; ISBN: 3-540-20222-6  
DT Conference; General Review  
LA English  
AB A review. Functional sites are well-defined regions that are relevant for  
protein function, and that include characteristic groups of amino acids.  
These regions may be involved in the interaction between proteins and  
other mols., such as other proteins, nucleic acids, small ligands and  
substrates. Interaction sites have been studied in great detail in  
representative protein families, and their relationship with natural  
substrates and drugs has been characterized, as well as their mediation in  
protein complex formation. In many cases they have been studied in  
relation to their potential for engineering protein activity. Protein  
binding sites have also been studied at a more general level by  
characterizing the typical structure of binding sites, and their general  
residue preferences. However, it is the relationship between the  
conservation of sequence features and protein active sites and binding  
sites that constitutes the basis of the development of prediction methods.  
The conservation of the chem. characteristics of the amino acids in  
specific groups of sequences, in the context of large protein families, is  
a particular method used in a growing collection of methods aimed at



predicting protein binding sites at a genomic scale. In this review we analyze these methods, discuss their similarities, and describe a no. of key unsolved problems.

RE.CNT 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2005:125529 CAPLUS  
TI Gene order in prokaryotes: conservation and implications  
AU \*\*\*Gomez, Manuel J.\*\*\* ; Cases, Ildefonso; Valencia, Alfonso  
CS Protein Design Group, Centro Nacional de Biotecnologia, CSIC, Campus  
Universidad Autonoma de Madrid, Madrid, 28049, Spain  
SO Molecules in Time and Space (2004), 209-237. Editor(s): Vicente, Miguel.  
Publisher: Kluwer Academic/Plenum Publishers, New York, N. Y.  
CODEN: 69GMH8; ISBN: 0-306-48578-8  
DT Conference  
LA English  
AB Genes in Prokaryotes are often organised in operons, groups of contiguous genes that function as single transcription units, or clusters, groups of contiguous genes subject to complex regulation that code for several transcripts. Several models suggest that the grouping of genes in operons or clusters provides physiol. and genetic advantages that pos. select their formation and maintenance. However, gene order along the chromosome is an evolutionary trait that is lost relatively quickly, since frequent chromosomal reorganisations and acquisition of foreign DNA shuffle the genetic material. As result, operons are generally conserved only among closely related species and widely conserved operons are scarce, although gene neighborhood may be a more conserved property. Interestingly, the conservation of operons, gene clusters or neighborhoods can be used as indicator of functional relations between gene products.

RE.CNT 105 THERE ARE 105 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2000:790327 CAPLUS  
DN 133:332032  
TI Secreted proteins of Mycobacterium tuberculosis and their use in vaccines and diagnostic reagents  
IN Gennaro, Maria L.; \*\*\*Gomez, Manuel J.\*\*\*  
PA The Public Health Research Institute of the City of New York, Inc., USA  
SO PCT Int. Appl., 60 pp.  
CODEN: PIXXD2  
DT Patent  
LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000066143	A1	20001109	WO 2000-US12197	20000504
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI US 1999-132479P	P	19990504		
US 1999-132503P	P	19990504		
AB The invention provides Mycobacterium tuberculosis polypeptides and genes encoding them for use in diagnostic and prophylactic methodologies. The proteins were identified in sequence databases by querying them for signal peptide-like sequences.				

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 6 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
DUPLICATE 1  
AN 2000:49334 BIOSIS  
DN PREV200000049334  
TI mraW, an essential gene at the dcw cluster of Escherichia coli codes for a cytoplasmic protein with methyltransferase activity.

AU Carrion, Maite; \*\*\*Gomez, Manuel J.\*\*\* ; Merchante-Schubert, Rafael;  
 Dongarra, Silvina; Ayala, Juan A. [Reprint author]  
 CS Centro de Biologia Molecular 'Severo Ochoa' C.S.I.C.-U.A.M., Universidad  
 Autonoma de Madrid Cantoblanco, Campus, 28049, Madrid, Spain  
 SO Biochimie (Paris), (Aug.-Sept., 1999) Vol. 81, No. 8-9, pp. 879-888.  
 print.  
 CODEN: BICMBE. ISSN: 0300-9084.  
 DT Article  
 LA English  
 ED Entered STN: 3 Feb 2000  
 Last Updated on STN: 31 Dec 2001  
 AB Three new open reading frames, mraZ, mraW and mraR (also called ftsL),  
 were revealed by DNA sequencing immediately upstream of gene pbpB in the  
 dcw cluster of Escherichia coli. We have found that mraW and mraZ are  
 active genes, coding for two proteins with relative molecular masses of 34  
 800 and 17 300, respectively. MraW is a cytoplasmic protein that under  
 overproduction condition is also loosely bound to the membrane. Soluble  
 MraW was purified up to 90% by a single high performance electrophoresis  
 (HPEC) step from an extract of an overproducing strain. The protein  
 exhibits a S-adenosyl-dependent methyltransferase activity on  
 membrane-located substrates.

L5 ANSWER 6 OF 6 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 DUPLICATE 2  
 AN 1993:444598 BIOSIS  
 DN PREV199345080223  
 TI Involvement of the amino- and carboxyl-terminal ends of PBP3 of  
 Escherichia coli on beta-lactam binding, membrane localization and  
 function of the protein.  
 AU \*\*\*Gomez, Manuel J.\*\*\* ; Desviat, Lourdes R.; Merchante, Rafael; Ayala,  
 Juan A.  
 CS Centro Biologia Molecular, CSIC-UAM, Canto Blanco 28049 Madrid, Spain  
 SO De Pedro, M. A. [Editor]; Hoeltje, J.-V. [Editor]; Loeffelhardt, W.  
 [Editor]. (1993) pp. 309-318. FEMS Symposium; Bacterial growth and lysis:  
 Metabolism and structure of the bacterial sacculus.  
 Publisher: Plenum Press, 233 Spring Street, New York, New York, USA;  
 Plenum Press, London, England, UK. Series: FEMS Symposium.  
 Meeting Info.: Symposium. Mallorca, Spain. April 5-10, 1992.  
 ISBN: 0-306-44401-1.  
 DT Article  
 Conference; (Meeting)  
 LA English  
 ED Entered STN: 28 Sep 1993  
 Last Updated on STN: 28 Sep 1993

=> s tuberculosis and mtsp?  
 L6 21 TUBERCULOSIS AND MTSP?

=> dup rem 16  
 PROCESSING COMPLETED FOR L6  
 L7 16 DUP REM L6 (5 DUPLICATES REMOVED)

=> d bib ab 1-  
 YOU HAVE REQUESTED DATA FROM 16 ANSWERS - CONTINUE? Y/(N):y

L7 ANSWER 1 OF 16 USPATFULL on STN  
 AN 2005:43739 USPATFULL  
 TI 83 human secreted proteins  
 IN Ruben, Steven M., Brookeville, MD, UNITED STATES  
 Feng, Ping, Germantown, MD, UNITED STATES  
 LaFleur, David W., Washington, DC, UNITED STATES  
 Moore, Paul A., North Bethesda, MD, UNITED STATES  
 Shi, Yanggu, Gaithersburg, MD, UNITED STATES  
 Kyaw, Hla, Boonsboro, MD, UNITED STATES  
 Li, Yi, Sunnyvale, CA, UNITED STATES  
 Zeng, ZhiZhen, Lansdale, PA, UNITED STATES  
 Carter, Kenneth C., North Potomac, MD, UNITED STATES  
 Endress, Gregory A., Florence, MA, UNITED STATES  
 Wei, Ying-Fei, Berkeley, CA, UNITED STATES

Fan, Ping, Rockville, MD, UNITED STATES  
Rosen, Craig A., Laytonsville, MD, UNITED STATES  
PA Human Genome Sciences, Inc., Rockville, MD (U.S. corporation)  
PI US 2005037467 A1 20050217  
AI US 2004-936773 A1 20040909 (10)  
RLI Continuation of Ser. No. US 2002-160162, filed on 4 Jun 2002, ABANDONED  
Continuation-in-part of Ser. No. US 2001-820649, filed on 30 Mar 2001,  
PENDING Continuation of Ser. No. US 2000-666984, filed on 21 Sep 2000,  
ABANDONED Continuation of Ser. No. US 1999-236557, filed on 26 Jan 1999,  
ABANDONED Continuation-in-part of Ser. No. WO 1998-US15949, filed on 29  
Jul 1998, PENDING  
PRAI US 2001-295558P 20010605 (60)  
US 1997-54209P 19970730 (60)  
US 1997-54211P 19970730 (60)  
US 1997-54212P 19970730 (60)  
US 1997-54213P 19970730 (60)  
US 1997-54214P 19970730 (60)  
US 1997-54215P 19970730 (60)  
US 1997-54217P 19970730 (60)  
US 1997-54218P 19970730 (60)  
US 1997-54234P 19970730 (60)  
US 1997-54236P 19970730 (60)  
US 1997-55968P 19970818 (60)  
US 1997-55969P 19970818 (60)  
US 1997-55972P 19970818 (60)  
US 1997-56534P 19970819 (60)  
US 1997-56543P 19970819 (60)  
US 1997-56554P 19970819 (60)  
US 1997-56561P 19970819 (60)  
US 1997-56727P 19970819 (60)  
US 1997-56729P 19970819 (60)  
US 1997-56730P 19970819 (60)  
DT Utility  
FS APPLICATION  
LREP HUMAN GENOME SCIENCES INC, INTELLECTUAL PROPERTY DEPT., 14200 SHADY  
GROVE ROAD, ROCKVILLE, MD, 20850  
CLMN Number of Claims: 24  
ECL Exemplary Claim: 1  
DRWN 2 Drawing Page(s)  
LN.CNT 24057  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB The present invention relates to novel human secreted proteins and  
isolated nucleic acids containing the coding regions of the genes  
encoding such proteins. Also provided are vectors, host cells,  
antibodies, and recombinant methods for producing human secreted  
proteins. The invention further relates to diagnostic and therapeutic  
methods useful for diagnosing and treating diseases, disorders, and/or  
conditions related to these novel human secreted proteins.  
L7 ANSWER 2 OF 16 USPATFULL on STN  
AN 2004:139602 USPATFULL  
TI Interferon gamma-like protein  
IN Fagan, Richard Joseph, London, UNITED KINGDOM  
Phelps, Christopher Benjamin, London, UNITED KINGDOM  
Gutteridge, Alex, Cambridge, UNITED KINGDOM  
Power, Christine, Thoiry, FRANCE  
Boschert, Ursula, Troinex, SWITZERLAND  
Chvatchko, Yolande, Confignon, SWITZERLAND  
PI US 2004106778 A1 20040603  
AI US 2003-600790 A1 20030620 (10)  
PRAI GB 2001-30720 20011221  
DT Utility  
FS APPLICATION  
LREP FROMMER LAWRENCE & HAUG, 745 FIFTH AVENUE- 10TH FL., NEW YORK, NY, 10151  
CLMN Number of Claims: 50  
ECL Exemplary Claim: 1  
DRWN 33 Drawing Page(s)  
LN.CNT 4032  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB This application discloses and claims a protein, herein identified as an  
interferon gamma-like secreted protein of the of the four helical bundle

cytokine fold, and to the use of this protein and nucleic acid sequences from the encoding gene in the diagnosis, prevention and treatment of disease.

L7 ANSWER 3 OF 16 USPATFULL on STN  
AN 2004:70018 USPATFULL  
TI Novel nucleic acids and polypeptides  
IN Tang, Y. Tom, San Jose, CA, UNITED STATES  
Liu, Chenghua, San Jose, CA, UNITED STATES  
Drmanac, Radoje T., Palo Alto, CA, UNITED STATES  
PI US 2004053245 A1 20040318  
AI US 2003-276774 A1 20030624 (10)  
WO 2001-US3800 20010205  
DT Utility  
FS APPLICATION  
LREP NUVELO, 675 ALMANOR AVE., SUNNYVALE, CA, 94085  
CLMN Number of Claims: 28  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 18750

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.

L7 ANSWER 4 OF 16 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
DUPLICATE 1  
AN 2004:259816 BIOSIS  
DN PREV200400261490  
TI Identification of the new T-cell-stimulating antigens from Mycobacterium  
\*\*\*tuberculosis\*\*\* culture filtrate.  
AU Lim, Jae-Hyun; Kim, Hwa-Jung; Lee, Kil-Soo; Jo, Eun-Kyeong; Song,  
Chang-Hwa; Jung, Saet-Byel; Kim, Su-Young; Lee, Ji-Sook; Paik, Tae-Hyun;  
Park, Jeong-Kyu [Reprint Author]  
CS Department of Microbiology, College of Medicine, Chungnam National  
University, 6 Munhwa-dong, Jung-ku, Daejeon, 301-747, South Korea  
jekpark@cnu.ac.kr  
SO FEMS Microbiology Letters, (12 March 2004) Vol. 232, No. 1, pp. 51-59.  
print.  
CODEN: FMLED7. ISSN: 0378-1097.  
DT Article  
LA English  
ED Entered STN: 19 May 2004  
Last Updated on STN: 19 May 2004

AB The proteins secreted by Mycobacterium \*\*\*tuberculosis\*\*\* are an important target for vaccine development. To identify the antigens from M. \*\*\*tuberculosis\*\*\* culture filtrate (CF) that strongly stimulate T-cells, the CF was fractionated by ion-exchange chromatography and then non-reducing sodium dodecyl sulfate-polyacrylamide gel electrophoresis with mini-whole gel elution. Each fraction was screened for its ability to induce interferon-gamma (IFN-gamma) production in peripheral blood mononuclear cells isolated from healthy tuberculin reactors. The protein bands that strongly induced IFN-gamma production were subjected to N-terminal sequencing. Two new proteins, a 17-kDa protein (Rv0164, \*\*\*MTSP17\*\*\* ) and an 11-kDa (Rv3204, \*\*\*MTSP11\*\*\* ) protein, were identified. The recombinant \*\*\*MTSP17\*\*\* (rMTSP17) and rMTSP11 induced significant production of IFN-gamma and interleukin (IL)-12p40 in peripheral blood mononuclear cells from healthy tuberculin reactors. Interestingly, IL-12p40 production in response to rMTSP11 was significantly higher than that in response to rMTSP17 or the three components of the antigen 85 complex. These results suggest that \*\*\*MTSP11\*\*\* antigen should be further evaluated as a component of a subunit vaccine.

L7 ANSWER 5 OF 16 USPATFULL on STN  
AN 2003:318742 USPATFULL  
TI Polynucleotides and polypeptides associated with the NF-kB pathway  
IN Carman, Julie, Lawrenceville, NJ, UNITED STATES  
Nadler, Steven, Princeton, NJ, UNITED STATES  
Feder, John N., Belle Mead, NJ, UNITED STATES  
PI US 2003224486 A1 20031204  
AI US 2002-126103 A1 20020419 (10)

PRAI US 2001-284962P 20010419 (60)  
 US 2001-286645P 20010426 (60)  
 US 2002-346986P 20020109 (60)  
 DT Utility  
 FS APPLICATION  
 LREP STEPHEN B. DAVIS, BRISTOL-MYERS SQUIBB COMPANY, PATENT DEPARTMENT, P O  
 BOX 4000, PRINCETON, NJ, 08543-4000  
 CLMN Number of Claims: 20  
 ECL Exemplary Claim: 1  
 DRWN 63 Drawing Page(s)  
 LN.CNT 28546  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The present invention provides polynucleotides encoding NF-kB-associated  
 polypeptides, fragments and homologues thereof. Also provided are  
 vectors, host cells, antibodies, and recombinant and synthetic methods  
 for producing said polypeptides. The invention further relates to  
 diagnostic and therapeutic methods for applying these NF-kB-associated  
 polypeptides to the diagnosis, treatment, and/or prevention of various  
 diseases and/or disorders related to these polypeptides. The invention  
 further relates to screening methods for identifying agonists and  
 antagonists of the polynucleotides and polypeptides of the present  
 invention.  
 L7 ANSWER 6 OF 16 USPATFULL on STN  
 AN 2003:283339 USPATFULL  
 TI 83 human secreted proteins  
 IN Ruben, Steven M., Olney, MD, UNITED STATES  
 Feng, Ping, Gaithersburg, MD, UNITED STATES  
 LaFleur, David W., Washington, DC, UNITED STATES  
 Moore, Paul A., Germantown, MD, UNITED STATES  
 Shi, Yanggu, Gaithersburg, MD, UNITED STATES  
 Kyaw, Hla, Frederick, MD, UNITED STATES  
 Li, Yi, Sunnyvale, CA, UNITED STATES  
 Zeng, Zhizhen, Gaithersburg, MD, UNITED STATES  
 Carter, Kenneth C., North Potomac, MD, UNITED STATES  
 Endress, Gregory A., Potomac, MD, UNITED STATES  
 Wei, Ying-Fei, Berkeley, CA, UNITED STATES  
 Fan, Ping, Gaithersburg, MD, UNITED STATES  
 Rosen, Craig A., Laytonsville, MD, UNITED STATES  
 PI US 2003199683 A1 20031023  
 AI US 2001-820649 A1 20010330 (9)  
 RLI Continuation of Ser. No. US 2000-666987, filed on 21 Sep 2000, PENDING  
 Continuation of Ser. No. US 1999-236557, filed on 26 Jan 1999, ABANDONED  
 Continuation-in-part of Ser. No. WO 1998-US15949, filed on 29 Jul 1998,  
 UNKNOWN  
 PRAI US 1997-54212P 19970730 (60)  
 US 1997-54209P 19970730 (60)  
 US 1997-54234P 19970730 (60)  
 US 1997-54218P 19970730 (60)  
 US 1997-54214P 19970730 (60)  
 US 1997-54236P 19970730 (60)  
 US 1997-54215P 19970730 (60)  
 US 1997-54211P 19970730 (60)  
 US 1997-54217P 19970730 (60)  
 US 1997-54213P 19970730 (60)  
 US 1997-55968P 19970818 (60)  
 US 1997-55969P 19970818 (60)  
 US 1997-55972P 19970818 (60)  
 US 1997-56561P 19970819 (60)  
 US 1997-56534P 19970819 (60)  
 US 1997-56729P 19970819 (60)  
 US 1997-56543P 19970819 (60)  
 US 1997-56727P 19970819 (60)  
 US 1997-56554P 19970819 (60)  
 US 1997-56730P 19970819 (60)  
 DT Utility  
 FS APPLICATION  
 LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850  
 CLMN Number of Claims: 23  
 ECL Exemplary Claim: 1  
 DRWN No Drawings

LN.CNT 13707

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel human secreted proteins and isolated nucleic acids containing the coding regions of the genes encoding such proteins. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human secreted proteins. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to these novel human secreted proteins.

L7 ANSWER 7 OF 16 USPATFULL on STN

AN 2003:238383 USPATFULL

TI 83 human secreted proteins

IN Ruben, Steven M., Olney, MD, UNITED STATES

Feng, Ping, Germantown, MD, UNITED STATES

LaFleur, David W., Washington, DC, UNITED STATES

Moore, Paul A., Germantown, MD, UNITED STATES

Shi, Yanggu, Gaithersburg, MD, UNITED STATES

Kyaw, Hla, Frederick, MD, UNITED STATES

Li, Yi, Sunnyvale, CA, UNITED STATES

Zeng, Zhizhen, Lansdale, PA, UNITED STATES

Carter, Kenneth C., North Potomac, MD, UNITED STATES

Endress, Gregory A., Florence, MA, UNITED STATES

Wei, Ying-Fei, Berkeley, CA, UNITED STATES

Fan, Ping, Potomac, MD, UNITED STATES

Rosen, Craig A., Laytonsville, MD, UNITED STATES

PA Human Genome Sciences, Inc., Rockville, MD, UNITED STATES, 20850 (U.S. corporation)

PI US 2003166541 A1 20030904

AI US 2002-160162 A1 20020604 (10)

RLI Continuation-in-part of Ser. No. US 1999-236557, filed on 26 Jan 1999, ABANDONED Continuation-in-part of Ser. No. WO 1998-US15949, filed on 29 Jul 1998, PENDING

PRAI US 2001-295558P 20010605 (60)

US 1997-54209P 19970730 (60)

US 1997-54211P 19970730 (60)

US 1997-54212P 19970730 (60)

US 1997-54213P 19970730 (60)

US 1997-54214P 19970730 (60)

US 1997-54215P 19970730 (60)

US 1997-54217P 19970730 (60)

US 1997-54218P 19970730 (60)

US 1997-54234P 19970730 (60)

US 1997-54236P 19970730 (60)

US 1997-55968P 19970818 (60)

US 1997-55969P 19970818 (60)

US 1997-55972P 19970818 (60)

US 1997-56534P 19970819 (60)

US 1997-56543P 19970819 (60)

US 1997-56554P 19970819 (60)

US 1997-56561P 19970819 (60)

US 1997-56727P 19970819 (60)

US 1997-56729P 19970819 (60)

US 1997-56730P 19970819 (60)

DT Utility

FS APPLICATION

LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850

CLMN Number of Claims: 24

ECL Exemplary Claim: 1

DRWN 2 Drawing Page(s)

LN.CNT 24088

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel human secreted proteins and isolated nucleic acids containing the coding regions of the genes encoding such proteins. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human secreted proteins. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating diseases, disorders, and/or conditions related to these novel human secreted proteins.

L7 ANSWER 8 OF 16 USPATFULL on STN

AN 2003:187959. USPATFULL  
 TI Detection of immunological memory, T-cell conjugates for pathology  
 imaging and therapy  
 IN Gundersen, Hans J. G., Horning, DENMARK  
 Zeuthen, Jesper, Hellerup, DENMARK  
 Nielsen, Steen J.I, Hillerod, DENMARK  
 PI US 2003129749 A1 20030710  
 AI US 2002-252112 A1 20020923 (10)  
 RLI Continuation of Ser. No. WO 2001-EP3250, filed on 22 Mar 2001, UNKNOWN  
 PRAI GB 2000-7088 20000323  
 DT Utility  
 FS APPLICATION  
 LREP NIXON & VANDERHYE P.C., 8th Floor, 1100 North Glebe Road, Arlington, VA,  
 22201  
 CLMN Number of Claims: 51  
 ECL Exemplary Claim: 1  
 DRWN 12 Drawing Page(s)  
 LN.CNT 2527  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB A method for detecting prior exposure of an individual mammal's immune  
 system to an antigen associated with a pathological process comprises  
 exposing T-cells to a complex antigen mixture, and detecting a  
 pre-existing T-cell specificity for an unknown antigen in said complex  
 antigen mixture. Labelled T-cells are then used to image the site of the  
 pathology and T-cells conjugated to a cytotoxic agent or precursor are  
 used to treat the pathology.  
 L7 ANSWER 9 OF 16 USPATFULL on STN  
 AN 2003:100295 USPATFULL  
 TI 87 human secreted proteins  
 IN Young, Paul, Gaithersburg, MD, UNITED STATES  
 Greene, John M., Gaithersburg, MD, UNITED STATES  
 Ferrie, Ann M., Painted Post, NY, UNITED STATES  
 Ruben, Steven M., Olney, MD, UNITED STATES  
 Rosen, Craig A., Laytonsville, MD, UNITED STATES  
 Duan, Roxanne, Gaithersburg, MD, UNITED STATES  
 Hu, Jing-Shan, Mountain View, CA, UNITED STATES  
 Florence, Kimberly, Rockville, MD, UNITED STATES  
 Olsen, Henrik S., Gaithersburg, MD, UNITED STATES  
 Ebner, Reinhard, Gaithersburg, MD, UNITED STATES  
 Brewer, Laurie A., St. Paul, MN, UNITED STATES  
 Moore, Paul A., Germantown, MD, UNITED STATES  
 Shi, Yanggu, Gaithersburg, MD, UNITED STATES  
 Lafleur, David W., Washington, DC, UNITED STATES  
 Ni, Jian, Germantown, MD, UNITED STATES  
 PA Human Genome Sciences, Inc., Rockville, MD, UNITED STATES, 20850 (U.S.  
 corporation)  
 PI US 2003069406 A1 20030410  
 AI US 2002-143090 A1 20020513 (10)  
 RLI Continuation of Ser. No. US 1998-154707, filed on 17 Sep 1998, PENDING  
 Continuation-in-part of Ser. No. WO 1998-US5311, filed on 19 Mar 1998,  
 UNKNOWN  
 PRAI US 1997-41277P 19970321 (60)  
 US 1997-42344P 19970321 (60)  
 US 1997-41276P 19970321 (60)  
 US 1997-41281P 19970321 (60)  
 US 1997-48094P 19970530 (60)  
 US 1997-48350P 19970530 (60)  
 US 1997-48188P 19970530 (60)  
 US 1997-48135P 19970530 (60)  
 US 1997-50937P 19970530 (60)  
 US 1997-48187P 19970530 (60)  
 US 1997-48099P 19970530 (60)  
 US 1997-48352P 19970530 (60)  
 US 1997-48186P 19970530 (60)  
 US 1997-48069P 19970530 (60)  
 US 1997-48095P 19970530 (60)  
 US 1997-48131P 19970530 (60)  
 US 1997-48096P 19970530 (60)  
 US 1997-48355P 19970530 (60)  
 US 1997-48160P 19970530 (60)

	US 1997-48351P	19970530 (60)
	US 1997-48154P	19970530 (60)
	US 1997-54804P	19970805 (60)
	US 1997-56370P	19970819 (60)
	US 1997-60862P	19971002 (60)
DT	Utility	
FS	APPLICATION	
LREP	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850	
CLMN	Number of Claims: 23	
ECL	Exemplary Claim: 1	
DRWN	No Drawings	
LN.CNT	15137	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	The present invention relates to novel human secreted proteins and isolated nucleic acids containing the coding regions of the genes encoding such proteins. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human secreted proteins. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to these novel human secreted proteins.	
L7	ANSWER 10 OF 16 USPATFULL on STN	
AN	2003:87011 USPATFULL	
TI	Secreted protein HFEAF41	
IN	Young, Paul, Gaithersburg, MD, UNITED STATES Greene, John M., Gaithersburg, MD, UNITED STATES Ferrie, Ann M., Tewksbury, MA, UNITED STATES Ruben, Steven M., Olney, MD, UNITED STATES Rosen, Craig A., Laytonsville, MD, UNITED STATES Duan, Roxanne, Bethesda, MD, UNITED STATES Hu, Jing-Shan, Sunnyvale, CA, UNITED STATES Florence, Kimberly, Rockville, MD, UNITED STATES Olsen, Henrik S., Gaithersburg, MD, UNITED STATES Ebner, Reinhard, Gaithersburg, MD, UNITED STATES Brewer, Laurie A., St. Paul, MN, UNITED STATES Moore, Paul A., Germantown, MD, UNITED STATES Shi, Yanggu, Gaithersburg, MD, UNITED STATES Lafleur, David W., Washington, DC, UNITED STATES Ni, Jian, Rockville, MD, UNITED STATES	
PI	US 2003060619	A1 20030327
AI	US 2001-983966	A1 20011026 (9)
RLI	Division of Ser. No. US 1998-154707, filed on 17 Sep 1998, PENDING Continuation-in-part of Ser. No. WO 1998-US5311, filed on 19 Mar 1998, UNKNOWN	
PRAI	US 1997-41277P	19970321 (60)
	US 1997-42344P	19970321 (60)
	US 1997-41276P	19970321 (60)
	US 1997-41281P	19970321 (60)
	US 1997-48094P	19970530 (60)
	US 1997-48350P	19970530 (60)
	US 1997-48188P	19970530 (60)
	US 1997-48135P	19970530 (60)
	US 1997-50937P	19970530 (60)
	US 1997-48187P	19970530 (60)
	US 1997-48099P	19970530 (60)
	US 1997-48352P	19970530 (60)
	US 1997-48186P	19970530 (60)
	US 1997-48069P	19970530 (60)
	US 1997-48095P	19970530 (60)
	US 1997-48131P	19970530 (60)
	US 1997-48096P	19970530 (60)
	US 1997-48355P	19970530 (60)
	US 1997-48160P	19970530 (60)
	US 1997-48351P	19970530 (60)
	US 1997-48154P	19970530 (60)
	US 1997-54804P	19970805 (60)
	US 1997-56370P	19970819 (60)
	US 1997-60862P	19971002 (60)
DT	Utility	
FS	APPLICATION	
LREP	Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, MD, 20850	



CLMN Number of Claims: 70  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 15264

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to 87 novel human secreted proteins and isolated nucleic acids containing the coding regions of the genes encoding such proteins. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human secreted proteins. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to these novel human secreted proteins.

L7 ANSWER 11 OF 16 USPATFULL on STN

AN 2003:72174 USPATFULL

TI Secreted protein HFEAF41

IN Young, Paul, Gaithersburg, MD, UNITED STATES  
Greene, John M., Gaithersburg, MD, UNITED STATES  
Ferrie, Ann M., Tewksbury, MA, UNITED STATES  
Ruben, Steven M., Olney, MD, UNITED STATES  
Rosen, Craig A., Laytonsville, MD, UNITED STATES  
Duan, Roxanne, Bethesda, MD, UNITED STATES  
Hu, Jing-Shan, Sunnyvale, CA, UNITED STATES  
Florence, Kimberly, Rockville, MD, UNITED STATES  
Olsen, Henrik S., Gaithersburg, MD, UNITED STATES  
Ebner, Reinhard, Gaithersburg, MD, UNITED STATES  
Brewer, Laurie A., St. Paul, MN, UNITED STATES  
Moore, Paul A., Germantown, MD, UNITED STATES  
Shi, Yanggu, Gaithersburg, MD, UNITED STATES  
Lafleur, David W., Washington, DC, UNITED STATES  
Ni, Jian, Rockville, MD, UNITED STATES

PI US 2003050461 A1 20030313

AI US 2001-966262 A1 20011001 (9)

RLI Continuation of Ser. No. US 1998-154707, filed on 17 Sep 1998, PENDING  
Continuation-in-part of Ser. No. WO 1998-US5311, filed on 19 Mar 1998,  
UNKNOWN

PRAI US 1997-41277P 19970321 (60)  
US 1997-42344P 19970321 (60)  
US 1997-41276P 19970321 (60)  
US 1997-41281P 19970321 (60)  
US 1997-48094P 19970530 (60)  
US 1997-48350P 19970530 (60)  
US 1997-48188P 19970530 (60)  
US 1997-48135P 19970530 (60)  
US 1997-50937P 19970530 (60)  
US 1997-48187P 19970530 (60)  
US 1997-48099P 19970530 (60)  
US 1997-48352P 19970530 (60)  
US 1997-48186P 19970530 (60)  
US 1997-48069P 19970530 (60)  
US 1997-48095P 19970530 (60)  
US 1997-48131P 19970530 (60)  
US 1997-48096P 19970530 (60)  
US 1997-48355P 19970530 (60)  
US 1997-48160P 19970530 (60)  
US 1997-48351P 19970530 (60)  
US 1997-48154P 19970530 (60)  
US 1997-54804P 19970805 (60)  
US 1997-56370P 19970819 (60)  
US 1997-60862P 19971002 (60)

DT Utility

FS APPLICATION

LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850

CLMN Number of Claims: 46

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 15105

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to 87 novel human secreted proteins and isolated nucleic acids containing the coding regions of the genes encoding such proteins. Also provided are vectors, host cells,

antibodies, and recombinant methods for producing human secreted proteins. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to these novel human secreted proteins.

L7 ANSWER 12 OF 16 USPATFULL on STN  
AN 2003:24336 USPATFULL  
TI Secreted protein HFEAF41  
IN Young, Paul, Gaithersburg, MD, UNITED STATES  
Greene, John M., Gaithersburg, MD, UNITED STATES  
Ferrie, Ann M., Painted Post, NY, UNITED STATES  
Ruben, Steven M., Olney, MD, UNITED STATES  
Rosen, Craig A., Laytonsville, MD, UNITED STATES  
Duan, Roxanne, Bethesda, MD, UNITED STATES  
Hu, Jing-Shan, Mountain View, CA, UNITED STATES  
Florence, Kimberly, Rockville, MD, UNITED STATES  
Olsen, Henrik S., Gaithersburg, MD, UNITED STATES  
Ebner, Reinhard, Gaithersburg, MD, UNITED STATES  
Brewer, Lauie A., St. Paul, MN, UNITED STATES  
Moore, Paul A., Germantown, MD, UNITED STATES  
Shi, Yanggu, Gaithersburg, VA, UNITED STATES  
Lafleur, David W., Washington, DC, UNITED STATES  
Ni, Jian, Germantown, MD, UNITED STATES  
PA Human Genome Sciences, Inc., Rockville, MD (U.S. corporation)  
PI US 2003018180 A1 20030123  
AI US 2002-59395 A1 20020131 (10)  
RLI Division of Ser. No. US 2001-966262, filed on 1 Oct 2001, PENDING  
Continuation of Ser. No. US 1998-154707, filed on 17 Sep 1998, PENDING  
Continuation-in-part of Ser. No. WO 1998-US5311, filed on 19 Mar 1998,  
UNKNOWN  
PRAI US 1997-41277P 19970321 (60)  
US 1997-42344P 19970321 (60)  
US 1997-41276P 19970321 (60)  
US 1997-41281P 19970321 (60)  
US 1997-48094P 19970530 (60)  
US 1997-48350P 19970530 (60)  
US 1997-48188P 19970530 (60)  
US 1997-48135P 19970530 (60)  
US 1997-50937P 19970530 (60)  
US 1997-48187P 19970530 (60)  
US 1997-48099P 19970530 (60)  
US 1997-48352P 19970530 (60)  
US 1997-48186P 19970530 (60)  
US 1997-48069P 19970530 (60)  
US 1997-48095P 19970530 (60)  
US 1997-48131P 19970530 (60)  
US 1997-48096P 19970530 (60)  
US 1997-48355P 19970530 (60)  
US 1997-48160P 19970530 (60)  
US 1997-48351P 19970530 (60)  
US 1997-48154P 19970530 (60)  
US 1997-54804P 19970805 (60)  
US 1997-56370P 19970819 (60)  
US 1997-60862P 19971002 (60)  
DT Utility  
FS APPLICATION  
LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850  
CLMN Number of Claims: 52  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 15142  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB The present invention relates to 87 novel human secreted proteins and isolated nucleic acids containing the coding regions of the genes encoding such proteins. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human secreted proteins. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to these novel human secreted proteins.

L7 ANSWER 13 OF 16 USPATFULL on STN

AN 2002:295324 USPATFULL  
 TI Secreted protein HFEP41  
 IN Young, Paul, Gaithersburg, MD, UNITED STATES  
 Greene, John M., Gaithersburg, MD, UNITED STATES  
 Ferrie, Ann M., Tewksburg, MA, UNITED STATES  
 Ruben, Steven M., Olney, MD, UNITED STATES  
 Rosen, Craig A., Laytonsville, MD, UNITED STATES  
 Duan, Roxanne, Bethesda, MD, UNITED STATES  
 Hu, Jing-Shan, Sunnyvale, CA, UNITED STATES  
 Florence, Kimberly, Rockville, MD, UNITED STATES  
 Olsen, Henrik S., Gaithersburg, MD, UNITED STATES  
 Ebner, Reinhard, Gaithersburg, MD, UNITED STATES  
 Brewer, Laurie A., St. Paul, MN, UNITED STATES  
 Moore, Paul A., Germantown, MD, UNITED STATES  
 Shi, Yanggu, Gaithersburg, MD, UNITED STATES  
 Lafleur, David W., Washington, DC, UNITED STATES  
 Ni, Jian, Rockville, MD, UNITED STATES  
 PI US 2002165374 A1 20021107  
 AI US 2001-984245 A1 20011029 (9)  
 RLI Division of Ser. No. US 1998-154707, filed on 17 Sep 1998, PENDING  
 Continuation-in-part of Ser. No. WO 1998-US5311, filed on 19 Mar 1998,  
 UNKNOWN  
 PRAI US 1997-41277P 19970321 (60)  
 US 1997-42344P 19970321 (60)  
 US 1997-41276P 19970321 (60)  
 US 1997-41281P 19970321 (60)  
 US 1997-48094P 19970530 (60)  
 US 1997-48350P 19970530 (60)  
 US 1997-48188P 19970530 (60)  
 US 1997-48135P 19970530 (60)  
 US 1997-50937P 19970530 (60)  
 US 1997-48187P 19970530 (60)  
 US 1997-48099P 19970530 (60)  
 US 1997-48352P 19970530 (60)  
 US 1997-48186P 19970530 (60)  
 US 1997-48069P 19970530 (60)  
 US 1997-48095P 19970530 (60)  
 US 1997-48131P 19970530 (60)  
 US 1997-48096P 19970530 (60)  
 US 1997-48355P 19970530 (60)  
 US 1997-48160P 19970530 (60)  
 US 1997-48351P 19970530 (60)  
 US 1997-48154P 19970530 (60)  
 US 1997-54804P 19970805 (60)  
 US 1997-56370P 19970819 (60)  
 US 1997-60862P 19971002 (60)  
 DT Utility  
 FS APPLICATION  
 LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850  
 CLMN Number of Claims: 23  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 15075  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The present invention relates to novel human secreted proteins and  
 isolated nucleic acids containing the coding regions of the genes  
 encoding such proteins. Also provided are vectors, host cells,  
 antibodies, and recombinant methods for producing human secreted  
 proteins. The invention further relates to diagnostic and therapeutic  
 methods useful for diagnosing and treating disorders related to these  
 novel human secreted proteins.  
 L7 ANSWER 14 OF 16 USPATFULL on STN  
 AN 2002:251138 USPATFULL  
 TI Methods of diagnosis and treatment of osteoporosis  
 IN Lewandrowski, Kai-Uwe, Brookline, MA, UNITED STATES  
 Trantolo, Debra J., Princeton, MA, UNITED STATES  
 PI US 2002137082 A1 20020926  
 AI US 2002-54171 A1 20020117 (10)  
 PRAI US 2001-263109P 20010119 (60)  
 US 2001-304887P 20010712 (60)

DT Utility  
FS APPLICATION  
LREP PATREA L. PABST, HOLLAND & KNIGHT LLP, SUITE 2000, ONE ATLANTIC CENTER,  
1201 WEST PEACHTREE STREET, N.E., ATLANTA, GA, 30309-3400  
CLMN Number of Claims: 29  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1719

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of detecting osteoporosis in a mammalian is disclosed herein  
which includes:

a) obtaining a sample of a bone related tissue or cells; and

b) measuring the concentration of at least a marker which is either  
bacteria, bacteria produced factors, or HSPs. The method may further  
include comparing the concentration with concentrations from the same  
individual over a period of time or against a standard concentration.  
The marker may be a bacteria, a chaperone molecule, or a bacteria  
produced. Also provided herein is a method of treating or preventing  
osteoporosis caused by a bone disease which includes administering to a  
mammalian subject a therapeutically effective amount of a formulation  
which is either an HSP antigenic formulation or a bacterial antigenic  
formulation. The osteoporosis can be caused by a bone disease induced by  
bone infectious agents such as viruses, bacteria, fungi, protozoa and  
parasites.

L7 ANSWER 15 OF 16 USPATFULL on STN

AN 2002:172477 USPATFULL

TI nusB

IN Biswas, Sanjoy, Paoli, PA, UNITED STATES  
Brown, James Raymond, Berwyn, PA, UNITED STATES  
Burnham, Martin Karl Russel, Barto, PA, UNITED STATES  
Chalker, Alison Francis, Trappe, PA, UNITED STATES  
Holmes, David John, West Chester, PA, UNITED STATES  
Ingraham, Karen Anne, Auburn, PA, UNITED STATES  
So, Chi Young, Havertown, PA, UNITED STATES  
Warren, Richard Lloyd, Blue Bell, PA, UNITED STATES  
Zalacain, Magdalena, West Chester, PA, UNITED STATES

PI US 2002091237 A1 20020711

AI US 2001-864641 A1 20010524 (9)

RLI Division of Ser. No. US 1999-285515, filed on 2 Apr 1999, GRANTED, Pat.  
No. US 6245891

PRAI US 1998-85031P 19980511 (60)

DT Utility

FS APPLICATION

LREP DECHERT, 4000 Bell Atlantic Tower, 1717 Arch Street, Philadelphia, PA,  
19103-2793

CLMN Number of Claims: 10

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1677

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides nusB polypeptides and polynucleotides encoding  
nusB polypeptides and methods for producing such polypeptides by  
recombinant techniques. Also provided are methods for utilizing nusB  
polypeptides to screen for antibacterial compounds.

L7 ANSWER 16 OF 16 USPATFULL on STN

AN 2001:86592 USPATFULL

TI nusB polypeptides and polynucleotides and methods thereof

IN Biswas, Sanjoy, Paoli, PA, United States  
Brown, James Raymond, Berwyn, PA, United States  
Burnham, Martin Karl Russel, Barto, PA, United States  
Chalker, Alison Francis, Trappe, PA, United States  
Holmes, David John, West Chester, PA, United States  
Ingraham, Karen Anne, Auburn, PA, United States  
So, Chi Young, Havertown, PA, United States  
Warren, Richard Lloyd, Blue Bell, PA, United States  
Zalacain, Magdalena, West Chester, PA, United States  
PA SmithKline Beecham Corporation, Philadelphia, PA, United States (U.S.)

corporation)  
PI US 6245891 B1 20010612  
AI US 1999-285515 19990402 (9)  
PRAI US 1998-85031P 19980511 (60)  
DT Utility  
FS GRANTED  
EXNAM Primary Examiner: Carlson, Karen Cochrane; Assistant Examiner: Robinson,  
Hope A.  
LREP Gimmi, Edward R., Deibert, Thomas S., King, William T.  
CLMN Number of Claims: 5  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1533  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB The invention provides nusB polypeptides and polynucleotides encoding  
nusB polypeptides and methods for producing such polypeptides by  
recombinant techniques. Also provided are methods for utilizing nusB  
polypeptides to screen for antibacterial compounds.

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